

## YOGA FOR DIABETES

Diabetes is the third most common disease in society. It is known as a 'life-long' condition and is third most prevalent following cancer and heart ailments. It is a metabolic illness in which the level of sugar in the blood is too high. This is because the pancreas can't produce the hormone insulin (Type 1 Diabetes), or (Type 2) either produces insufficient amounts, or insulin is unable to unlock body cells allowing glucose in, so it can be used as fuel for energy. Often people are unaware they are diabetic until long after they contract the illness and so knowing symptoms can help prevent matters spinning out of control. When this occurs, glucose produced by the liver or from eating carbohydrates, builds up within the body and instead of being metabolised into fuel, becomes toxic. There are other strains of the condition including gestational Diabetes, which occurs during pregnancy.





In Type 1 Diabetes an autoimmune response occurs, whereby the immune system destroys insulin producing cells. Longer term high blood glucose can irreparably damage many of the organs within the body. Type 1 Diabetes may be inherited or triggered by infection and affects both children and adults. Type 2 Diabetes is also genetic and largely due to lifestyle and has associated risk factors that help to identify the possibility of contracting the condition. These include being overweight, having high blood pressure, having had gestational diabetes, mental problems or having a family member who has or had diabetes. The classic symptoms of diabetes are frequent urination and subsequent thirst (as the body tries to flush out the excess glucose), hunger, weight loss, lethargy, hyperventilation, nausea, vomiting and abdominal cramps, acetone-smelling breath, blurred vision and skin rashes. Undiagnosed diabetes symptoms also include genital thrush, poor healing capacity and in severe cases loss of limbs, sight and hearing, liver disease, kidney failure, hardened arteries, heart disease, stroke, nerve damage and depression. Due to its potentially devastating effects, it's no surprise that diabetes has been termed 'the mother of all diseases'.

> The general approach is to monitor lifestyle with appropriate exercise and diet, using insulin to rebalance the level of sugar in the blood. The common belief is that the disease is currently incurable although new studies reveal that if glucagon (also produced by the pancreas, to increase the blood sugar) is suppressed, this may reduce or eliminate the body's need for insulin.

> > The good news is that both types of diabetes benefit from yogic practices. Some believe yoga is powerful enough to stimulate the pancreas to produce insulin when in the past it had failed or ceased to do so. There are reports of individuals who upon correcting their eating habits alone, relieved all symptoms of the disease, which in the long run may be sufficient to nullify the condition totally. Stress may not be the direct cause of diabetes but it certainly plays a huge role in leading to high blood glucose and pressure and obesity, which if left untreated can cause it to develop.

## How Yoga Helps

Regular practice of asanas or postures will encourage balance within the body and mind, simply by improving circulation at the deepest levels. The system is flushed of toxins through the squeezing and releasing caused by the compressive and expansive movements which occur during and moving into and out of positions. Asanas target the musculoskeletal system and if done correctly also have a direct effect on physiological (organic and cellular), neurological (nervous) and endocrinal (glandular) systems. Due to the pressures or releases they create while working in tandem with the application of effective breathing, they stimulate renewal throughout. The overall effect is to improve all internal systems. When the body experiences stress, adrenaline and cortisol are released to prepare it for flight and promote recovery. However, if the body is constantly overstressed, especially where no physical exertion presides, the cortisol counteracts insulin, leaving the blood sugar levels way too high. This may lead to high blood pressure, heart problems, weight gain, arthritis and diabetes.

Through consistent relaxation the body has an innate ability to educate organs to work more efficiently, providing the opportunity to return to normal functioning. The reduction of stress reduces glucagon production, which as mentioned is great news for Type 1 Diabetes - the need for insulin reduces too. Exercise itself acts like insulin, by allowing the glucose to penetrate and be stored effectively in muscles or the liver, thereby reducing its level in the blood. With consistency both the liver and muscles are able to store more glucose, creating a positive spiral, whereby cholesterol levels drop, one loses weight, gains muscle mass, improves bone density and feels more energetic.

Studies to see the relationship between muscular strength and life span (carried out in Canada, published in the Journal of Medicine and Science in Sports and Exercise - May 2002), comparing strength of upper body, lower body, grip, performance in press ups, sit ups and general flexibility, revealed that although "Skeletal muscle is a major storage site for glucose in the body......it may be that abdominal muscular endurance is a marker for glucose metabolism, which helps protect against many chronic diseases, such as Type 2 diabetes and heart disease." Results drawn from information about the 8,116 people tested, of which thirteen years later 238 had died, revealed that a strong abdomen plays a key role in sustaining health. Yogis discovered this eons ago, applying abdominal breathing to activate the core musculature and central nervous system.

**Yogic breathing** which uses the core breathing muscles, includes the diaphragm which assist with blood and pranic circulation. This also switches the nervous system to a restorative mode, specifically by focusing on techniques which lengthen the exhalation, relating to recuperation and digestion.

**Asanas and pranayamas** that stimulate the solar (upper abdomen) and pharyngeal (throat) plexuses specifically, are of importance, as they help to invigorate and regulate the pancreas and thyroid glands respectively. The thyroid will reinforce metabolic stability and the pancreas as we know, be encouraged to produce insulin or glucagon to reduce or increase blood sugar respectively.

**Asanas** – Simple Sun Salutations create an immediate interactive relationship between the body, breath and mind, while exercising the heart and lowering blood sugar. Practice the following asanas with any intuitive counter movements that promote the body to remain relaxed at all times; Maha mudra (great seal), half spinal twist, seated forward bend, sage twist, frog and child's pose (place hands over belly, exhale and fold forward to compress the pancreas. Hold position and breathe a few times), snake, locust, plough, shoulder stand and wind relieve pose.

## Pranayama

The following will help to balance the central nervous system and encourage retention of vital energy; Ujjayi (vocal/diaphragmatic) breathing, alternate nostril breathing, humming breath, kapal bhati, inhalation retention, bellows breath, breath of fire, uddiyana bandha and nauli kriya. (For contraindications consult your yoga teacher).

## Meditation

Practice seated or reclining relaxation. Feel the weight of your body. Observe your breath as you relax all the body parts systematically – your head, brain, face, arms, hands, torso, legs, feet, etc. Allow your breath to smile throughout your body, especially into your heart and pancreas. Be conscious of this feeling and your ability to trigger it instantaneously.

For more information about Pranasana Yoga, Relaxation and Breathing Techniques please visit pranasanayoga.com or email matt@pranasanayoga.com